

[54] SIGNATURE VERIFICATION AND AUTHENTICATION SYSTEMS

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[57] ABSTRACT

Signature verification and authentication systems are disclosed which include documents each of which bears a cryptographic representation of at least one property of a signature of an authorized user thereof modified in accordance with at least one of a set of indicia identifying the document with its authorized user. Apparatus are disclosed whereby said cryptographic representations can be decrypted and authenticated, using said indicia as a key. Apparatus are disclosed for producing such cryptographic representations on documents, which apparatus include cryptographic means for producing cryptographic representations of signatures and means for modifying the operation of these cryptographic means in accordance with one or more of said indicia. Methods of signature verification and authentication using documents bearing such cryptographic representations are disclosed. Both passive systems in which the decrypting of said cryptographic representations is performed by eye with the help of passive optical elements, and active systems in which electronic means are used for the decrypting of said cryptographic representations are disclosed.

56 Claims, 14 Drawing Figures

